Fisheries and Oceans Canada
Pêches et Océans Canada

INFOCEANS

THE QUEBEC REGION BULLETIN — DECEMBER 2010 – JANUARY 2011/VOLUME 13/NUMBER 6

HOLIDAY WISHES

Richard Nadeau
Regional Director General
Fisheries and Oceans Canada

As this year comes to a close, we wish each and every one of you and your families a joyous holiday period. This time of rejoicing, often connected to the year's achievements, is a good moment for an organization to take stock of the events that occurred during the year just ending.

Via Canada's Economic Action Plan, Fisheries and Oceans Canada and the Canadian Coast Guard have invested over $52 million in Quebec. These projects—actions in support of the fisheries, investments in federal laboratories, site decontamination, harbour construction work, the refitting or acquisition of vessels—would not have been possible without your support.

We will stay our course in 2011 to meet the challenges that lie before us. To this end, we intend to strengthen our strategic capabilities and optimize our resources so we can take action in keeping with our vision—providing excellent services to our clientele.

All the employees of Fisheries and Oceans Canada and the Canadian Coast Guard in Quebec join us in sending you and your loved ones our best wishes for happiness and health in the coming year.

Marc Demonceaux
Assistant Commissioner
Canadian Coast Guard

AWARDS PRESENTATION

HARBOUR AUTHORITY RECOGNITION PROGRAM

Last October, the ceremony to present the *Harbour Authority Recognition Program* distinction awards for Quebec was held for the third consecutive year. Through these awards, Fisheries and Oceans Canada recognizes the work, accomplishments and efforts made by members of harbour authorities by officially saluting the important contribution of a person or team to the achievement of *Small Craft Harbour Program* objectives.

THE WINNERS

Raoul Grenier joined the Administration portuaire de Newport, on the Gaspé Peninsula when he retired from the groundfish fishery. He has been the authority's president for some twelve years and is the only founding member still on the board. The *Individual Commitment Award* was presented to him for his dedication within his organization. Mr. Grenier also won the national *Prix d'Excellence for Individual Commitment*. His presence at the harbour sites in Newport and his daily management of operations are a model for others.

The *Environmental Stewardship Award* was presented to **Garry Josey**, who has managed the Entry Island harbour on the Magdalen Islands since 2001. Mr. Josey has managed the environmental aspect of the harbour in an exemplary and remarkable manner. Some of the many notable elements include the exceptional cleanliness of the service and landing areas, the cleanliness of the waste oil depot site, the high quality of waste management and the general cleanliness of the site for many years.

Pierre Léonard, President of the Administration portuaire des Escoumins for 16 years received the *Achievement Distinction Award*. Under his management, the harbour facilities are now used beyond the fishing season thanks to a rental agreement with the private sector. Because of this agreement, the harbour has attained self-sufficiency and enough earnings have even been generated to cover the cost of a preliminary study on the construction of a boat launching ramp. The Administration portuaire des Escoumins is one of the most profitable harbours on the North Shore.

DFO B. BOUDREAU

The three winners: Garry Josey, Pierre Léonard and Raoul Grenier

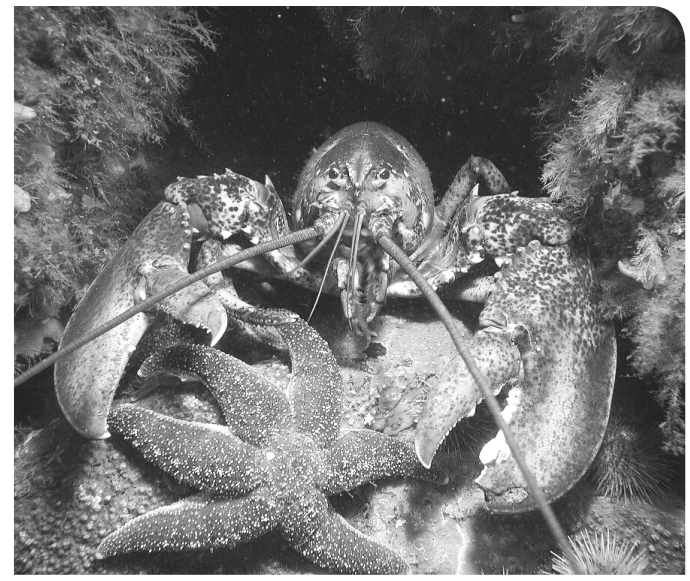
Congratulations to these three worthy representatives who have contributed in an exceptional manner to the development of their harbour authorities.

Lyne Beaumont
Small Craft Harbours

Dispatches 2 3 4
Biodiversity 3
New publications 4

NEW INTEGRATED FISHERIES MANAGEMENT PLAN
FOR AREA 22 LOBSTER

The Quebec Region of Fisheries and Oceans Canada (DFO) has just completed the new integrated fisheries management plan (IFMP) for lobster in Area 22 (LFA 22), which surrounds the Magdalen Islands. This IFMP is the first published by the Quebec Region since the herring plan for 4S came out in 2007.



DFO R. LAROCQUE

The IFMP serves to provide a framework for efforts to ensure the conservation and sustainable use of marine resources. It consolidates all the information available about a stock or a species in a single document, making the information needed for a thorough understanding of the issues surrounding a fishery readily available.

The plan presents the background and socio-economic importance of the relevant fishery as well as available information on the species' biology. In addition to this factual information, it defines the issues and objectives that will guide—in this case—the management of Magdalen Islands lobster from 2010 to 2014.

The IFMP for LFA 22 lobster was drawn up by local managers, the biologist in charge and regional DFO specialists. It was then submitted to the Association des pêcheurs des Îles-de-la-Madeleine (APPIM) for validation to make sure the plan's issues and objectives truly reflect the concerns expressed over the last few years. The long-standing collaboration between APPIM and DFO facilitated implementation of this management tool. The plan will be updated every year in response to recommendations made by the local advisory committee, whose members include harvesters appointed by APPIM to represent the lobster harvesters in their community.

The IFMP informs the industry and the general public about the conservation efforts made by harvesters. This transparency will make it easier to assess the sustainability of the fishery. "Updating the IFMPs for Quebec's main fish stocks is a priority for the Regional Fisheries and Aquaculture Management Branch," says its director, Patrick Vincent. The IFMP for lobster area 22 is the first in a long series to come."

The integrated fisheries management plan for Area 22 lobster is available at Fisheries and Oceans Canada offices in Quebec and will also be offered in an electronic version on the Web.

Cédric Arseneau
Fisheries and Aquaculture Management

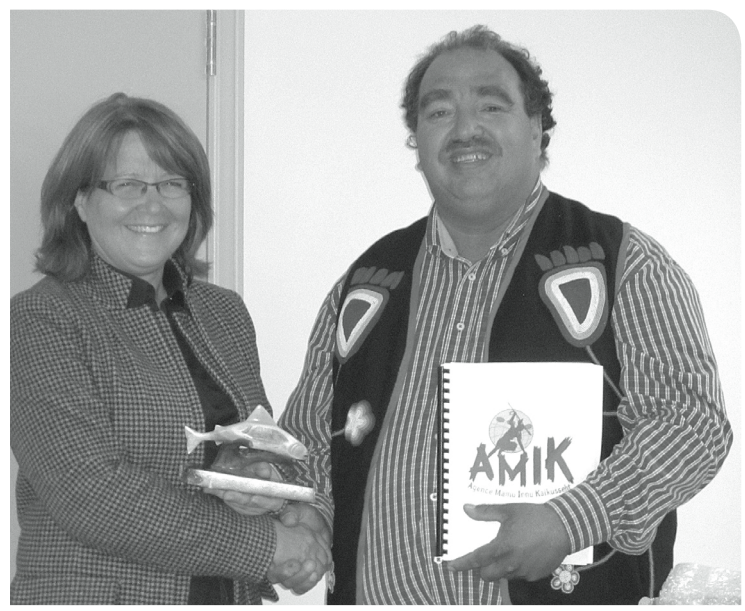
Dispatches

DEPUTY MINISTER CLAIRE DANSEREAU
VISITS THE NORTH SHORE

Last September, Claire Dansereau, Deputy Minister of Fisheries and Oceans Canada (DFO), visited the North Shore. Accompanied by the Regional Director General, Richard Nadeau, and the Interim Area Director, Jean Morisset, she met with several North Shore organizations that work in fields connected to DFO's activities.

The Deputy Minister took advantage of the occasion to visit the offices of AMIK, an Aboriginal organization working primarily in the commercial fishing sector. AMIK General Manager, Léo St-Onge, presented a very positive portrait of the organization's mandates, objectives and activities as well as of the relations between aboriginal and non-native fishers in the North Shore sector. Dansereau also visited the harbour facilities in Sept-Îles in the company of Port General Manager, Pierre Gagnon. Several major projects involving the Department are currently underway or in preparation.

Dansereau's visit concluded with a meeting with Clovis Poirier, President of the Alliance des pêcheurs professionnels du Québec which led to a highly appreciated informal discussion of regional matters.



AMIK S. LE BRETON

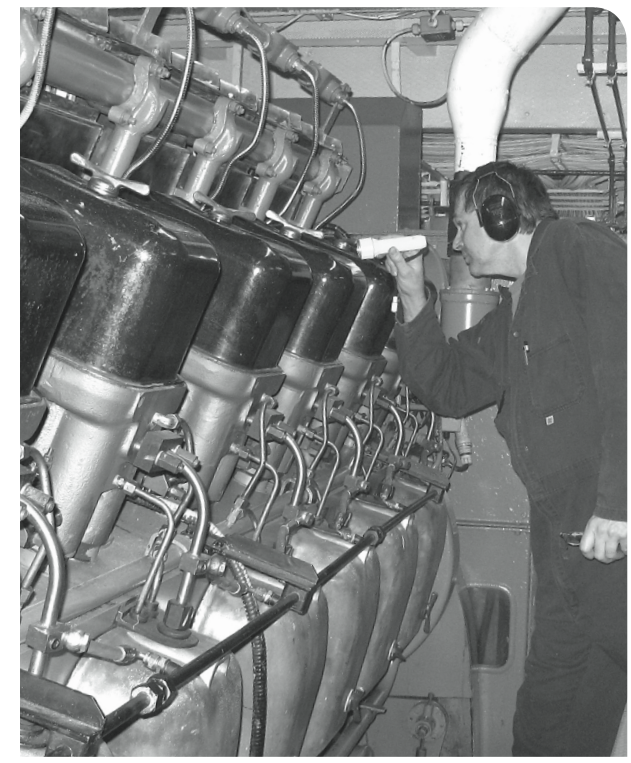
Claire Dansereau with Léo St-Onge, AMIK General Manager

Martin St-Gelais, Director
North Shore Area

RECRUITMENT UNDERWAY
MARINE ENGINEERING OFFICER

When you think ship, what employment corps do you spontaneously think of? The captain and the sailors, of course, but we often forget that a whole range of skill sets is needed to keep a Canadian Coast Guard icebreaker running, including that of the marine engineering officer.

Marine engineering officers must be able to operate, maintain and repair the mechanical equipment and engine room systems, which include diesel engines, generators, propulsion gear, hydraulic, refrigeration and pumping systems, vessel command systems, compressed air circuits, wastewater treatment and potable water production systems, etc. Their work is essential and without them, crews would have no choice but to stay at the wharf!



DFO N. LETENDRE

A career in this field calls for good manual dexterity and a marked interest for science and technological equipment. In addition to supervising engine room personnel, the marine engineering officer must be able to quickly spot the causes of a breakdown and react effectively. The work at sea lasts 14 to 42 days, and is followed by an equivalent rest period with full remuneration.

To work for the Canadian Coast Guard, a marine engineering officer must have a bachelor's degree in nautical science and a certificate of fourth class engineer, motor ships obtained after completing paid studies in marine engineering at the Canadian Coast Guard College in Sydney, Nova Scotia.

Are you interested in a career as a marine engineering officer with the Canadian Coast Guard? You have until January 31, 2011 to apply for the Officer training program at www.emplois.gc.ca.

Nathalie Letendre
Communications

THE DNA BARCODE
AT THE SERVICE OF MARINE BIODIVERSITY

The oceans provide us with food, raw materials and medicines; they also serve as transportation channels and arenas for outdoor activities. However, they are threatened by overfishing, habitat degradation, pollution and climate change, factors that contribute to the extinction of a number of species. We have to protect marine biodiversity to ensure our survival and prosperity. But before we can do so, we need to know what inhabits the oceans.

Traditionally, species were identified on the basis of their morphology (in other words, their appearance and physical characteristics). But using a new method, DNA barcoding, we can now identify species by means of their genetic characteristics. Just as products sold in supermarkets are identified by barcodes, living species can be identified by a tiny, very specific part of their DNA that differs from one species to the next. These DNA barcodes make it possible to identify organisms quickly, easily and cheaply.

CRUSTACEANS

Crustaceans are a large group of aquatic organisms and present a great variety of sizes, shapes, lifestyles and dispersal behaviours. Some, like krill, are key forage species for other species and their extinction would have serious consequences for ecosystems. Others, like lobsters, crabs and shrimps, are harvested by industries generating earnings in the billions of dollars.

The DNA barcode will have practical benefits. For instance, it will serve to identify crustacean eggs and larvae in plankton samples taken to assess populations. It will also greatly facilitate analysis of the stomach contents of crustaceans and fish, studied to understand "who eats what". It will be possible to detect hidden species—like illegally traded protected species, parasites, etc.—in processed seafood. It will result in the discovery of invasive and as-yet-unknown species. In the near future, we will be able to know just how rich and diversified our marine world really is!

DFO A. RADULOVICI

Echinogammarus ischnus **and part of its DNA code (Usually in 4 colours, corresponding to the 4 nucleobases found in DNA).**

THE VERY LATEST RESULTS

A library of DNA sequences is being established for Canada's three oceans. For Eastern Canada, the first results show, for example, that an invasive amphipod species (*Echinogammarus ischnus*) has arrived in the St. Lawrence estuary after being found in the Great Lakes and the St. Lawrence River a few years ago. Future studies will be able to show the consequences of this invader on the estuary's native fauna.

Analyses have also revealed that several of Eastern Canada's marine crustaceans with a similar morphology in fact have different genetic codes (such species are known as "cryptic" species), which suggests that marine biodiversity has been underestimated.

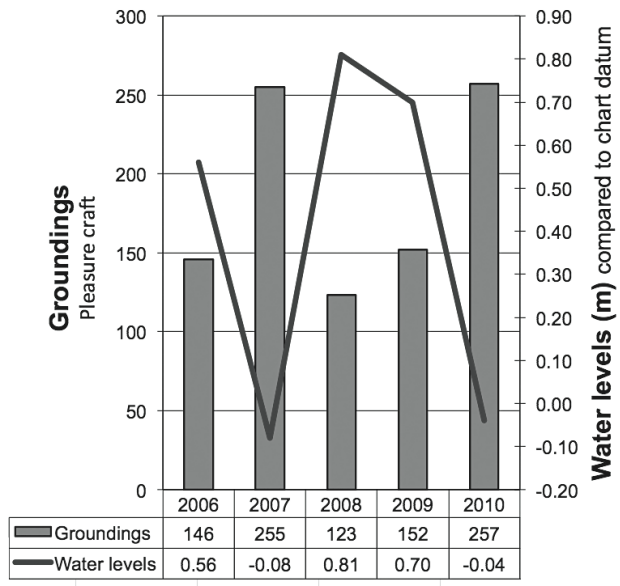
By combining classic and modern identification methods, the biodiversity field has become more dynamic than ever before, particularly this year, the International Year of Biodiversity. It is now possible to freely access numerous DNA sequence data bases on line. A complete image of our marine world will help us improve predictions and draw up better policies to protect our natural resources for future generations.

Adriana Radulovici, doctoral student, UQAR
Under the direction of France Dufresne, UQAR, and Bernard Sainte-Marie, DFO

LARGE NUMBER OF GROUNDINGS
INVOLVING PLEASURE CRAFT

The statistics compiled by the Canadian Coast Guard show that there were many groundings by pleasure craft in 2010, particularly in the metropolitan area. This situation could well be connected to water levels, which remained exceptionally low in that area throughout the summer of 2010. The graphic below shows that in recent years, there has been a marked correlation between low water levels and a high number of groundings.

From June to September 2010, the mean water level recorded by the Canadian Hydrographic Service in the Port of Montréal— -4 cm—was below chart datum for 75 days, 61 percent of the time. Pleasure craft groundings were particularly numerous in 2007 and 2010, two years during which water levels were very low. The same situation was observed in 1999, 2001 and 2005.



	2006	2007	2008	2009	2010
Groundings	146	255	123	152	257
Water levels	0.56	-0.08	0.81	0.70	-0.04

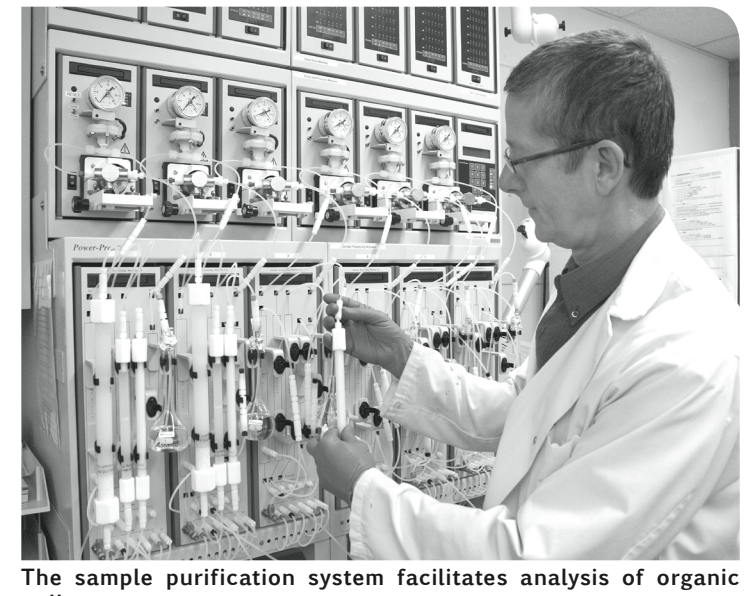
A public notice reminding users of the measures to take to safely navigate in low water conditions was issued in the spring. To prepare for the next season, Fisheries and Oceans Canada will continue its efforts to raise awareness amongst pleasure boaters.

Robert Dorais
Science

EXPERTISE IN AQUATIC CHEMICAL ANALYSIS
LABORATORY NOW FULLY OPERATIONAL

The Laboratory of Expertise in Aquatic Chemical Analysis (LEACA) at the Maurice Lamontagne Institute is now fully operational. It thus becomes the national centre of expertise in inorganic chemical analysis and a major organic chemistry support pole for Fisheries and Oceans Canada. The use of this laboratory will enable researchers to improve their understanding of how chemical products present in the aquatic environment evolve and to learn more about the impacts associated with these products.

The team of chemistry experts now has state-of-the-art instruments at its disposal to precisely measure chemical elements such as heavy metals like lead, arsenic, mercury, etc. and numerous organic contaminants originating in the aquatic environment. For instance, the scientists can find out the mercury content in fish or marine mammals. The results will serve to improve support for Department priorities pertaining to integrated research on aquatic ecosystems.



DFO F. SERVANT

The sample purification system facilitates analysis of organic pollutants.

SHARKS AT RISK
CONSULTATIONS

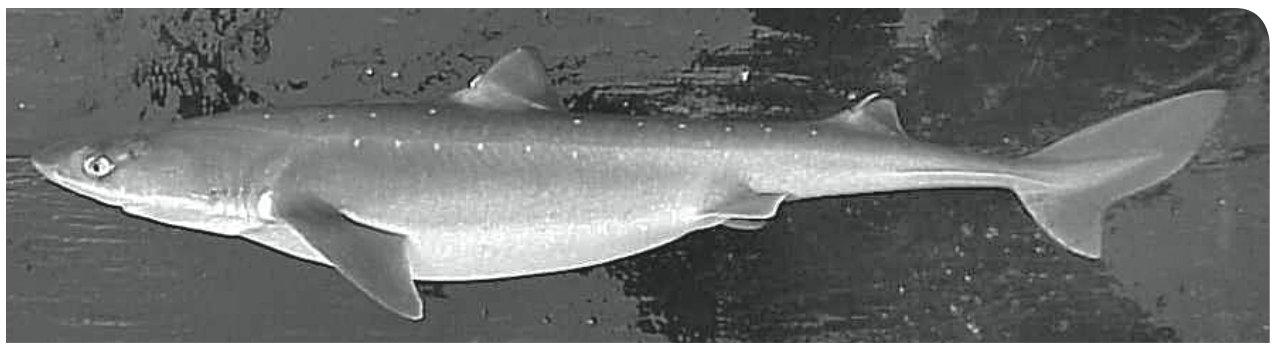
Fisheries and Oceans Canada will soon be proceeding with a consultation on the possibility of protecting Atlantic populations of the Basking Shark and the Spiny Dogfish under the *Species at Risk Act* (SARA). These two shark populations have been assessed as being of "special concern" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). When a species of special concern is added to the list of species at risk, it is not prohibited to fish or have in one's possession individuals of this species, but a management plan must be drawn up to foster its recovery.

The consultation documents for these two populations will soon be added to the Species at Risk Public Registry. They will notably provide information about each species and examples of management measures that could be implemented to protect them. For each population, there will also be a short questionnaire posted on the site that you can fill out to inform us about any potential impacts on your activities that might occur if this species was added to the list of species at risk and to give us your opinion about the relevance of protecting the species under SARA.

For more information, consult the Species at Risk Public Registry at http://www.sararegistry.gc.ca or contact the Fisheries and Oceans Canada Endangered Species Management Branch at 1-877-775-0848 or especesperilqc@dfo-mpo.gc.ca.

G. B. SKOMAL

Basking Shark



NOAA

Spiny Dogfish

FEATURED RESEARCH WORK

The Fisheries and Oceans Canada Web site regularly presents new, easy-to-read articles on research work being conducted by the Department's scientific teams across the country.

Three new articles on projects in Quebec have been added in the last few months:

- *Pollution a Possible Culprit in the Threatened Status of a Beluga Population*
- *Nitrous Oxide: A Powerful Greenhouse Gas Under Investigation in the Arctic*
- *Snow Crab Trap Survey to Ensure Sustainability*

You can read these articles in the Science section of the Fisheries and Oceans Canada Web site (www.dfo-mpo.gc.ca) under the *Feature article* tab

NEW SCIENCE ADVISORY REPORTS ON THE INTERNET

The following science advisory reports are now available on the Canadian Science Advisory Secretariat's Web site, www.dfo-mpo.gc.ca/csas, in the *CSAS Publications* section, *Science Advisory Reports (2005+)*, for 2010:

- *Guidance Related to the Efficacy of Measures Used to Mitigate Potential Impacts of Seismic Sound on Marine Mammals* (2010/043)
- *Snow Crab Trap Survey to Ensure Sustainability* (2010/044)

STATISTICS REVIEW

The 2007-2008 *Annual Statistics Review* of Quebec's marine fisheries is now available on the Department's Web site. The document presents a portrait of the catch sector (work force, quotas, landings, etc.) and plant production in the three maritime areas. It also deals with the seal hunt and with Quebec seafood exports and imports.

You will find this statistical review in the *Regional Publications* section of our Web site (www.qc.dfo-mpo.gc.ca) under the *Statistics* tab.

FOLLOW US ON TWITTER!

The Quebec Region of Fisheries and Oceans Canada and the Canadian Coast Guard now has its own Twitter profile.

Follow us at the following address: http://twitter.com/MPO_GCC_Quebec. You will be informed about what's happening at the Department, our public activities, new publications, Web updates, media releases and much more.

Twitter is a subscribable microblogging platform that allows users to follow a variety of groups, organizations and individuals. The published messages (known as *tweets*) are very short and can redirect readers to more detailed information, photos or videos located elsewhere on the Web.

SUBSCRIBING TO RSS

If you don't want to miss out on anything in the upcoming issues, you can now subscribe to the *Infoceans* Web edition by signing up for the RSS news feed. Whenever a new issue becomes available, you will receive the headlines as well as a link to view the entire newsletter online.

WRITE US!

We are always delighted to receive your comments, questions and suggestions regarding the content of *Infoceans*.

You can reach us by e-mail at infoceans@dfo-mpo.gc.ca, or by mail at *Infoceans*, Communications Regional Branch, 104 Dalhousie Street, Québec, Quebec G1K 7Y7.

The *Infoceans* team

DECEMBER 2010 – JANUARY 2011/VOLUME 13/NUMBER 6

Published by: **Fisheries and Oceans Canada**
Quebec Region
Regional Communications Branch
104 Dalhousie Street
Québec, Quebec G1K 7Y7
Telephone: 418-648-2239
Email: infoceans@dfo-mpo.gc.ca

Director: Caroline Hilt

Editor: Karina Laberge

Editorial committee: Cédric Arseneau, Lyne Beaumont, Paule Blaney, Andréanne Demers, Robert Dorais, Guy Laberge, Martial Ménard, Danièle Raby, Pierre Strand and Chantale Thiboutot

Visual Coordinator: Denis Chamard

Collaborators: Martin Bourget, Marc Demonceaux, Huguette Flamand, Viviane Haeberlé, Valérie Leblanc, Nathalie Letendre, Richard Nadeau, Sylvi Racine, Adriana Radulovici, Bernard Sainte-Marie and Martin St-Gelais

INFOCEANS informs the Quebec Region's clients about the policies and programs of Fisheries and Oceans Canada. To subscribe, send your request to the address to the left. Reproduction is permitted, with indication of the source. The editor wishes to be informed in writing of these uses. Also available on www.dfo-mpo.gc.ca under *Quebec region*.

ISSN 1485-6069